

## CLAIMS

What is claimed is.

1. A shaped charge assembly comprising:

a casing having an open end and a closed end;

a base formed on the closed end of said casing;

walls extending away from the outer edge of said base terminating on the open end; and

a spine disposed adjacent said casing having a recess formed therein to receive said casing.

2. The shaped charge assembly of claim 1 further comprising a space confined by said walls and said base, wherein said space is capable of receiving an amount of explosive.

3. The shaped charge assembly of claim 1 wherein said casing is formed into a generally tubular shape.

4. The shaped charge assembly of claim 1, wherein said spine and said recess are capable of retaining substantially all of the casing fragments produced during detonation of the explosive.

5. The shaped charge assembly of claim 1 further comprising a retaining shell releasably securable to said spine, said retaining shell coaxially circumscribing said casing when secured to said spine.

6. The shaped charge assembly of claim 5, further comprising a first set of threads formed on said spine formed to mate with a corresponding second set of threads formed on said retaining shell.

1 7. The shaped charge assembly of claim 5 further comprising a bushing coaxially disposed  
2 between said case and said retaining shell.

3 8. The shaped charge assembly of claim 1 wherein the thickness of said walls decreases with  
4 distance from said base to the open end of said case.

5 9. The shaped charge assembly of claim 7 wherein the thickness of said bushing is variable  
6 to accommodate varied orientations of said casing.

7 10. The shaped charge assembly of claim 1 further comprising at least one other shaped  
8 charge assembly.

9 11. The shaped charge assembly of claim 10 further comprising a gun body capable of  
10 retaining said shaped charge assembly of said at least one other shaped charge assembly.

11 12. The shaped charge assembly of claim 1 further comprising a gun body, wherein said spine  
12 extends along a portion of the length of the gun body, wherein the presence of said spine  
13 and said casing produce an asymmetric radial weight distribution around the axis of the  
14 gun body.

15 13. The shaped charge assembly of claim 1, wherein the edges of said base are substantially  
16 curvilinear and the thickness of said base generally exceeds the thickness of said walls  
17 thereby producing a crucible shaped casing.